

WHAT IS CLAIMED IS:

- 1 1. An apparatus comprising:
2 a UI view definition for a user interface; and
3 a UI view manager operable to dynamically generate the user interface from
4 the UI view definition, wherein the UI view manager instantiates a
5 wrapped control as part of the user interface.
- 1 2. The apparatus of claim 1 wherein
2 the wrapped control comprises:
3 a control; and
4 a wrapper;
5 and
6 the UI view manager instantiates the wrapped control by providing the control
7 as part of the user interface using the wrapper.
- 1 3. The apparatus of claim 1 wherein
2 the user interface comprises a plurality of controls, the wrapped control being
3 one of the controls.
- 1 4. The apparatus of claim 1 wherein
2 the UI view manager is operable to dynamically add a new wrapped control to
3 the user interface.
- 1 5. The apparatus of claim 1 wherein
2 the user interface includes a plurality of controls; and
3 the UI view manager is operable to dynamically remove an existing control of
4 the controls from the user interface.
- 1 6. The apparatus of claim 1 wherein
2 the UI view manager is operable to dynamically change a function of the
3 wrapped control.
- 1 7. The apparatus of claim 1 further comprising:
2 a UI container, wherein

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3 the user interface is provided within an environment provided by the
4 UI container.

1 8. The apparatus of claim 1 wherein
2 the UI view manager provides the wrapped control as part of the user interface
3 by including a user interface element of the wrapped control in the user
4 interface.

1 9. The apparatus of claim 1 wherein the UI view manager instantiates the
2 wrapped control as part of the user interface by:
3 providing functionality of the wrapped control to be performed in response to
4 activating a user interface element of the wrapped control in the user
5 interface.

1 10. The apparatus of claim 1 wherein the wrapped control comprises:
2 code to implement a control interface, wherein the implementation of the
3 control interface enables the UI view manager to invoke some behavior
4 of the wrapped control by invoking methods of the implementation of
5 the control interface.

1 11. The apparatus of claim 1 wherein
2 the UI view manager contains an implementation of a UI view interface and
3 the wrapped control invokes function of the UI view interface implementation
4 of the UI view interface to communicate with the UI view manager.

1 12. The apparatus of claim 1 wherein
2 the UI view manager is operable to dynamically generate the user interface in
3 response to a change to the UI view definition.

1 13. The apparatus of claim 1 further comprising:
2 a user interface designer for providing a UI view definition.

1 14. The apparatus of claim 1 wherein
2 the UI view definition corresponds to an XML file.

1 15. The apparatus of claim 1 wherein

the UI view definition comprises a control definition for the wrapped control,
 wherein the control definition specifies a user interface element of the
 wrapped control and a program identifier of code to provide
 functionality of the wrapped control.

16. The apparatus of claim 1 wherein
 the UI view definition comprises a panel definition for a panel of the user
 interface.

17. The apparatus of claim 16 wherein
 the panel definition comprises a control definition for a control to be presented
 in the panel, wherein the control definition specifies a user interface
 element of the control and a program identifier of code to provide
 functionality of the control.

18. A method for providing a user interface comprising:
 generating a user interface from a UI view definition and dynamically editing
 the user interface,
 wherein
 the generating includes creating a wrapper for generating a wrapped
 control as part of the user interface.

19. The method of claim 18 further comprising:
 dynamically adding a new wrapped control to the user interface.

20. The method of claim 18 further comprising:
 dynamically changing a function of the wrapped control.

21. The method of claim 18 further comprising:
 dynamically removing an existing wrapped control from the user interface.

22. The method of claim 18 further comprising:
 sending a message to the wrapped control via a control interface associated
 with the wrapper.

23. The method of claim 18 further comprising:

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receiving a message from the wrapped control via a UI view interface
associated with a UI view manager.

24. The method of claim 18 wherein creating a wrapper comprises:
implementing at least one function of a control interface.

25. The method of claim 24 wherein the at least one function is selected
from the set a first function to cause the control to read its internal data, a second
function to cause the control to load a property of the control from the UI view
definition, a third function to save a property of the control to the UI view definition,
a fourth function to return a license key for the control, a fifth function to initialize a
property of the control, and a sixth function to receive a notification about a user
interface event.

26. The method of claim 18 further comprising:
generating a UI view manager by implementing at least one function of an IUI
view interface the function selected from the set a first function
returning a table of references to business objects, a second function
returning a parameter to provide scope of access to a control of the
user interface, a third function to register a control for providing alarm
information to the control, a fourth function to deregister a control to
terminate providing alarm information to the control, a fifth function to
create a user interface panel for housing controls, a sixth function to
create a user interface panel for adding a control to a user interface
panel, a seventh function to remove a panel from the user interface, an
eight function to remove a control from a user interface panel, a ninth
function to activate or deactivate a control, a tenth function to display a
text message of a control on a status message panel.

27. A computer system comprising:
a processor;
a display screen, coupled to said processor;
computer readable medium coupled to said processor; and
computer code, encoded in said computer readable medium,

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configured to cause said processor to dynamically generate a user interface from a UI view definition on the display screen, by virtue of being configured to cause said processor to: use a wrapper to generate a wrapped control as part of the user interface.

28. The computer system of claim 24 wherein said processor is further configured to dynamically add a new wrapped control to the user interface.

29. The computer system of claim 24 wherein said processor is further configured to dynamically change a function of the wrapped control.

30. The computer system of claim 24 wherein said processor is further configured to dynamically remove an existing wrapped control from the user interface.

31. The computer system of claim 24 wherein said processor is further configured to dynamically send a message to the wrapped control via a control interface associated with the wrapper.

32. The computer system of claim 24 wherein said processor is further configured to dynamically receive a message from the wrapped control via a UI view interface associated with a UI view manager.

33. A computer program product comprising:
generating instructions to dynamically generate a user interface from a UI view definition, wherein
the generating instructions include using instructions for using a wrapper to generate a wrapped control as part of the user interface;

and

a computer-readable medium that stores the generating instructions and the

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9 using instructions.

1 34. The computer program product of claim 33 further comprising:
2 adding instructions to dynamically add a new wrapped control to the user
3 interface;
4 and wherein
5 the computer-readable medium further stores the adding instructions.

1 35. The computer program product of claim 33 further comprising:
2 changing instructions to dynamically change a function of the wrapped
3 control;
4 and wherein
5 the computer-readable medium further stores the changing instructions.

1 36. The computer program product of claim 33 further comprising:
2 removing instructions to dynamically remove an existing wrapped control
3 from the user interface;
4 and wherein
5 the computer-readable medium further stores the removing instructions.

1 37. The computer program product of claim 33 further comprising:
2 sending instructions to send a message to the wrapped control via a control
3 interface associated with the wrapper;
4 and wherein
5 the computer-readable medium further stores the sending instructions.

1 38. The computer program product of claim 33 further comprising:
2 receiving instructions to receive a message from the wrapped control via a UI
3 view interface associated with a UI view manager;
4 and wherein
5 the computer-readable medium further stores the receiving instructions.

1 39. An apparatus comprising:
2 generating means for dynamically generating a user interface from a UI view
3 definition,

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wherein
the generating means includes using means for using a wrapper for generating
a wrapped control as part of the user interface.

40. The apparatus of claim 39 further comprising:
adding means for dynamically adding a new wrapped control to the user
interface.

41. The apparatus of claim 39 further comprising:
changing means for dynamically changing a function of the wrapped control.

42. The apparatus of claim 39 further comprising:
removing means for dynamically removing an existing wrapped control from
the user interface.

43. The apparatus of claim 39 further comprising:
sending means for sending a message to the wrapped control via a control
interface associated with the wrapper.

44. The apparatus of claim 39 further comprising:
receiving means for receiving a message from the wrapped control via a UI
view interface associated with a UI view manager.

45. A system comprising:
a wrapped control; and
a UI view manager, wherein
the UI view manager dynamically provides the wrapped control as part
of a user interface.

46. A system comprising:
a wrapped control comprising:
a control; and
a wrapper around the control;
and
a UI view manager, wherein

the UI view manager uses the wrapper to dynamically provide the control as part of a user interface.

47. A signal embodied in a carrier wave comprising:
generating instructions to dynamically generate a user interface from a UI view definition, wherein
the generating instructions include using instructions for using a wrapper to generate a wrapped control as part of the user interface.

48. A signal embodied in a carrier wave comprising:
a user interface 100 produced by generating instructions to dynamically generate the user interface from a UI view definition, wherein
the generating instructions include using instructions for using a wrapper to generate a wrapped control as part of the user interface.

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